Amendments to the Specification

Please replace the paragraph beginning on page 3, line 29 with the following amended paragraph:

In some embodiments, the removable media member may include one or more electrical and/or optical devices. For example, the removable media member may include one or more transistors, diodes, sensors such as optical, pressure, temperature and/or flow sensors, Vertical Cavity Surface Emitting Lasers (VCSELs), LEDs, electrostatically actuated actuators or pumps, micro-lenses or any other suitable electrical, mechanical and/or optical device. One illustrative removable media member that includes flow sensors is shown and described in U.S. Patent Application Serial No. [[H00-03973]] 10/150,851, issued as U.S. Patent No. 6,794,981 on September 21, 2004, which is incorporated herein by reference. To provide power and/or to communicate or control the one or more electrical, mechanical and/or optical devices, an electrical and/or optical interface may be provided between the first and/or second member and the removable media member.

Please replace the paragraph beginning on page 10, line 16 with the following amended paragraph:

Pressure chamber 46a includes a first pressure chamber 70 and a second pressure chamber 72. A first valve 74 is provided between the first pressure chamber 70 and the second pressure chamber 72 for controllably releasing the pressure in the first pressure chamber 70 to a second pressure chamber 72. A second valve 76, in fluid communication with the second pressure chamber 72, controllably vents the pressure in the second pressure chamber 72. Each valve is preferably an array of electrostatically actuated microvalves that are individually addressable and controllable, as described in, for example, co-pending U.S. Patent Application Serial Number 09/404,560, entitled "ADDRESSABLE VALVE ARRAYS FOR PROPORTIONAL PRESSURE OR FLOW CONTROL", and incorporated herein by reference. Pressure chambers 46b and 46c include similar valves to control the pressures applied to the lyse reservoir 64 and sheath reservoir 66, respectively. Alternatively, each valve may be an array of electrostatically

actuated microvalves that are pulse modulated with a controllable duty cycle to achieve a controlled "effective" flow or leak rate. Alternatively, each valve may be a similar to that described in co-pending U.S. Patent Application Serial Number [[1100.1174101]] 10/174,851, entitled "ELECTROSTATICALLY ACTUATED VALVE", which is incorporated herein by reference.

Please replace the paragraph beginning on page 12, line 1 with the following amended paragraph:

During operation, and to pressurize the system, the manual pressurizing element 44 is depressed. In the example shown, the manual pressurizing element 44 includes three plungers, with each plunger received within a corresponding one of the first pressure chambers. The plungers create a relatively high non-precision pressure in the first pressure chambers. Lower, controlled pressures are built in the secondary chambers by opening the first valves 70, 84 and 94, which produce a controllable leak into the secondary chambers. If [[two]] too much pressure builds up in the secondary pressure chambers, the corresponding vent valve 76, 86 and 96 are opened to relieve the pressure.

Please replace the paragraph beginning on page 14, line 9 with the following amended paragraph:

A fluid control module may then be fluidly coupled to the fluid ports of the second member 126. In the illustrative embodiment, the fluid control module includes the air accumulator module 136, the valve module assembly 134 with polymer microvalves, and the air buffer module 132. The air accumulator module 136 includes an internal chamber for accumulating air pressure. A port (not shown) may be provided from the internal chamber of the air accumulator 136 to an air pressure source. The accumulated air pressure may be supplied to the valve module assembly 134. The valve module assembly may include one or more microvalves, such as polymer microvalves as disclosed in U.S. Patent Application Serial Number [[1100.1174101]] 10/174,851, entitled "ELECTROSTATICALLY ACTUATED VALVE", which is incorporated herein by reference. In the illustrative embodiment, the valve module assembly 134 may

provide three separate pressure channels including a blood channel, a lyse channel and a sheath channel, as shown and described above with respect to Figures 1-4. The valve module assembly 134 is preferably controlled by a controller in base 122 to provide three separate controlled pressures to air buffer module 132. Air buffer module 132 buffers the controlled pressures, and delivers the pressurized air to the fluid ports of the removable media member 150 via the fluid ports that pass in or through the second member 126.